



United States
Department of
Agriculture

Forest
Service

R3 Regional Office

333 Broadway SE
Albuquerque, NM 87102
FAX (505) 842-3800
V/TTY (505) 842-3292

File Code: 3420

Date: August 1, 2005

Lawrence Morrin
Regional Director
Bureau of Indian Affairs
Southwest Regional Office
P.O. Box 26567
Albuquerque, NM 87125

Dear Mr. Morrin:

On July 20-22, Dave Conklin of our staff met with Bill Hornsby (Mescalero Agency) to evaluate proposed FY 2006 dwarf mistletoe control projects on the Mescalero Apache Reservation. Some ongoing and recently completed treatment areas were also examined. Several other Tribal and Agency employees participated at various times during these site visits. This letter describes the proposed project areas and planned treatments, and includes our recommendations. Detailed prescriptions, implementation guides, and maps of the treatments units are included in the Agency's proposals.

The proposed treatment areas are in the Nogal, Inde-Taazhee, and Upper Pine Tree logging units and include a total of 3,325 acres. Harvest and follow-up work (including FHP-funded dwarf mistletoe control) has been ongoing in the Nogal and Inde-Taazhe units the past 4 to 5 years, while logging in Upper Pine Tree unit began earlier this year. Prescriptions and marking guidelines are largely dictated by dwarf mistletoe severity, and often vary within delineated treatment areas.

Nogal. Two recently harvested areas totaling 398 acres are included. One of these (335 acres) abuts the Lincoln National Forest boundary near Apache Springs, the other (63 acres) lies about two miles to the northeast above Potato Patch Canyon. Both areas are mixed conifer forest (approx. 8400' elevation), with varying amounts of Douglas-fir, white fir, ponderosa pine, and southwestern white pine. The larger area has moderate to heavy dwarf mistletoe infection in both the Douglas-fir and ponderosa pine components, while the smaller area is a healthier stand, with only light infection in the Douglas-fir observed. Virtually all mistletoe-infected trees of commercial size (>9' dbh) have already been removed from these areas.

Follow-up treatment in the larger unit would fell all visibly-infected Douglas-fir and ponderosa pine, and generally all host trees within 30 to 50 feet of visible infection (excluding young regeneration below "knee-high"). Uninfected areas and non-host trees would be thinned to an average 20-foot spacing, favoring the best dominant and codominant stems. Post-treatment basal areas in these areas should range from about 35 to 60 ft²/acre, excluding small openings in the larger stand.





Recent treatment in Turkey Canyon

Inde-Taazhe. This portion of the proposal includes one area in Turkey Canyon (240 acres) and one in Indian Canyon (378 acres). Both lie within recently logged “stringers” of commercial forest in the eastern portion of the reservation (mean elevation 7200’). The Turkey Canyon stand is predominantly pine, with several age classes represented. Dwarf mistletoe infection is generally very light and scattered. The Indian Canyon stand is predominantly pine, but contains significant amounts of Douglas-fir. Dwarf mistletoe infection here is light to moderate in both tree species.

Follow-up treatment in both areas would retain the best dominant and codominant trees on an average 20-foot spacing. Within infected areas, all visibly infected trees and generally all host trees within 50’ of visible infection would be felled. Residual basal areas would typically range from around 40 to 60 ft²/acre, excluding a few small openings in Indian Canyon. Both areas are adjacent to recently treated blocks (FY 2001 and 2004 FHP-funded projects); treatment would result in continuous, well-thinned (and largely mistletoe-free) forest stringers throughout both of these major drainages.

Upper Pine Tree. A total of 2309 acres are proposed for follow-up treatment in this new logging unit, located in the extensive ponderosa pine-dominated forest in the center of the reservation (mean elevation 7800’). This area has been divided into two major strata—one primarily encompassing the ridgetops (a total of 1000 acres), the other the slopes (1309 acres).

The ridgetops have an extremely high incidence of dwarf mistletoe, as well as very high stocking of small trees. A recent intensive survey by the Agency determined that over 95% of the area is infected. Dave had examined this area two years ago, and concluded that that effective treatment would be problematic, due (in part) to the large amount of slash that would result. Since then, the Agency has analyzed the area from a fuels perspective and has requested Hazardous Fuels Reduction (HFR) funding to cover the majority of treatment costs.

Following removal of all infected, commercial-size trees (at the time of this visit, logging had been completed over about half this area), a dual strategy involving machine mastication and hand thinning (chainsaws) would be used to treat the residual stands, which consist of patchy mosaics of pole and sapling groups. The pole-size groups (mostly trees 4 to 9” dbh) would be machine masticated, while the sapling groups (mostly trees < 4” dbh) would be treated by hand (all pine over two feet tall would be cut) in order to retain the youngest seedlings.

The pre-sale survey (mentioned above) indicates that the majority of this area is adequately stocked with very young (< 2’ tall) pine regeneration. Our long-term monitoring in the nearby Whitetail area indicates that these small trees should have a very low rate of infection. Although

the prescription calls for retention of *all* trees < 2' tall in the hand-thinning areas, we certainly recommend that workers remove any visibly-infected ones they encounter, since these could potentially spread the disease to their neighbors. As in many similarly-treated areas at Mescalero, a follow-up "sanitation" should be scheduled 5 to 7 years after to remove saplings that develop latent infections.

The remainder of the Upper Pine Tree area (1309 acres) would be treated entirely by hand. Generally infection is less severe in these areas than on the ridgetops; prescriptions include both even-age and uneven-age treatments, depending on infection level. Typically all mistletoe-infected pine and all pine (excluding seedlings) within 50 feet of visible infection will be cut. Douglas-fir is a significant component in several of these stands and will be favored in areas with pine mistletoe (little or no Douglas-fir dwarf mistletoe occurs here). The best dominant and codominant trees will be retained throughout these stands, with target basal areas of 45 to 55 ft² (excluding small openings). We recommend retaining all healthy, "crop tree" quality white pines in these areas, since they are relatively uncommon.

One other very general recommendation for this area, and other treatment areas, is (where possible) to retain more trees in the younger age classes. Although a 20-foot average spacing of crop trees usually achieves target basal areas, closer spacing (perhaps 15 to 18 feet) for *healthy* saplings and small poles should make better use of a site and better allow for natural attrition. We acknowledge and encourage efforts already being made--such as additional marking of leave trees after logging--to address potential deficits in young (particularly 20 to 40 year old) trees.

Summary and Conclusions

The proposed FY 2006 projects should 1) provide effective control of dwarf mistletoe, 2) reduce potential losses from bark beetles, and 3) increase growth on selected crop trees. These projects would continue what may be the most aggressive and sustained effort ever to control dwarf mistletoe in the Southwest. Our examination of ongoing and recently completed project areas indicates a good rate of accomplishment and quality results. Overall, the past several years have seen good coordination between the Agency and the Tribe in managing a sizable commercial forest and accomplishing some rather challenging forest health objectives.

As in recent years, the FY 2006 projects would be implemented via contract with individual Tribal members, through the Tribe's Division of Resource Management and Protection. We are pleased to support these continuing efforts toward improving long-term forest health and productivity at Mescalero.

Sincerely,

/s/ Debra Allen-Reid
DEBRA ALLEN-REID
New Mexico Zone Leader, Forest Health
cc: Leonard Lucero, John Anhold

John Waconda, Southwest Regional Office, BIA; Bill Hornsby and Bernie Ryan, Mescalero Agency, BIA; Thora Walsh-Padilla, Mescalero Tribe